



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/777,820 Confirmation No.: Unassigned
Applicant: Collins *et al.*
Filed: February 12, 2004
TC/A.AU.: Unassigned
Examiner: Unassigned
Docket No.: 11138.105024 MAYO 1001 CON
Customer No.: 20786
Title: Cobalamin Conjugates Useful as Antitumor Agents

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450


Transmittal of Information Disclosure Statement

Sir:

The citation of information on the attached Form PTO-1449 is made pursuant to 37 C.F.R. §§ 1.56, 1.97, and 1.98. Copies of references are enclosed for: AA, AV, BD, BK, BL, BM, BN, BO, BR, BX, CA, CB, CL, CM, CO, CP, CQ, CR, CS, CT, CU, CV, CW, DA, DD, DF, DG, DK, DL, DM, EC, ED, EF, EG, EH, EK, EL, EM, EN, EO, FA, FC, FD, FE, FF, FG, FH, FI, FJ, FK, GA, GB, GD, GF, GH, and GJ. Copies of remaining references were cited in the parent application 09/690,197. The Examiner's attention is drawn to copending applications U.S.S.N. 09/690,198, 10/028,857, and 09/690,353. The citation of this information does not constitute an admission of priority or that any cited item is available as a reference, or a waiver of any right the applicant may have under applicable statutes, Rules of Practice in patent cases, or otherwise.

Because this Information Disclosure Statement is being submitted before mailing of a first Office action on the merits, Applicants do not believe any additional fees are due; however, the Commissioner is hereby authorized to charge any fees due or credit any overpayment to Deposit Account No. 11-0980.

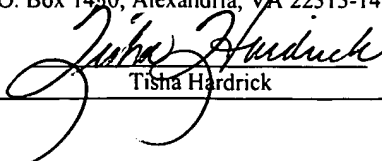
Respectfully submitted,


Madeline I. Johnston
Reg. No. 36,174

Dated: May 6, 2004
King & Spalding, LLP
191 Peachtree Street, N.E., Atlanta, GA 30303
Office: (404)572-4600/ Fax: 404-572-5145

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on May 6, 2004.


Tisha Hardrick

3466127_1.DOC



Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

1

of

7

Complete if Known

Application Number

10/777,820

Filing Date

February 12, 2004

First Named Inventor

Collins *et al.*

Group Art Unit

Unassigned

Examiner

Unassigned

Attorney Docket Number

11138.105024 MAYO 1001 CON

3466095 1.DOC

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pgs, Clmns, Lns, Where Relevant Passages/Relevant Figs Appear
		Number	Kind Code (if known)			
	AA	3,627,788	A	Bouchaudon	11-27-1968	
	AB	3,936,440	A	Nath	02-03-1976	
	AC	3,981,863	A	Niswender <i>et al.</i>	09-21-1976	
	AD	4,209,614	A	Bernstein <i>et al.</i>	06-24-1980	
	AE	4,279,859	A	Gutcho <i>et al.</i>	07-21-1981	
	AF	4,283,342	A	Yollees	08-11-1981	
	AG	4,301,140	A	Frank <i>et al.</i>	11-17-1981	
	AH	4,465,775	A	Houts	08-14-1984	
	AI	4,612,302	A	Szabo <i>et al.</i>	09-16-1986	
	AJ	4,684,620	A	Hruby <i>et al.</i>	08-04-1987	
	AK	4,853,371	A	Coy <i>et al.</i>	08-01-1989	
	AL	5,308,606	A	Wilson <i>et al.</i>	05-03-1994	
	AM	5,405,598	A	Schinazi <i>et al.</i>	08-11-1995	
	AN	5,405,839	A	Toraya <i>et al.</i>	04-11-1995	
	AO	5,428,023	A	Russell-Jones <i>et al.</i>	06-27-1995	
	AP	5,449,720	A	Russell-Jones <i>et al.</i>	09-12-1995	
	AQ	5,462,724	A	Schinazi <i>et al.</i>	10-31-1995	
	AR	5,514,695	A	Bergeron	05-07-1996	
	AS	5,548,064	A	Russell-Jones <i>et al.</i>	08-20-1996	
	AT	5,574,018	A	Habberfield <i>et al.</i>	11-12-1996	
	AU	5,589,463	A	Russell-Jones <i>et al.</i>	12-31-1996	
	AV	5,599,796	A	Schinazi <i>et al.</i>	02-04-1997	
	AW	5,608,060	A	Axworthy <i>et al.</i>	03-04-1997	
	AX	5,739,313	A	Collins <i>et al.</i>	04-14-1998	
	AY	5,807,832	A	Russell-Jones <i>et al.</i>	09-15-1998	
	AZ	5,840,880	A	Morgan, Jr. <i>et al.</i>	11-24-1998	
	AAA	5,869,465	A	Morgan, Jr. <i>et al.</i>	02-09-1999	
	AAB	5,869,466	A	Russell-Jones <i>et al.</i>	02-09-1999	
	AAC	5,872,107	A	Schinazi <i>et al.</i>	02-16-1999	
	AAD	5,877,165	A	Miura <i>et al.</i>	03-02-1999	
	AAE	5,936,082	A	Bauer	08-10-1999	

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Submitted for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Complete if Known	
				Application Number	10/777,820
				Filing Date	February 12, 2004
				First Named Inventor	Collins <i>et al.</i>
				Group Art Unit	Unassigned
				Examiner Name	Unassigned
Sheet	2	of	7	Attorney Docket Number	11138.105024 MAYO 1001 CON

3466095 1.DOC

U.S. PATENT DOCUMENTS						
Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pgs, Clmns, Lns, Where Relevant Passages/Relevant Figs Appear
		Number	Kind Code (if known)			
	BA	6,004,533	A	Collins <i>et al.</i>	12-21-1999	
	BB	6,074,625	A	Hawthorne <i>et al.</i>	06-13-1900	
	BC	6,083,926	A	Morgan <i>et al.</i>	07-04-2000	
	BD	6,083,966	A	Bergeron, Jr.	07-04-2000	
	BE	6,096,290	A	Collins <i>et al.</i>	08-01-2000	
	BF	6,150,341	A	Russell-Jones, <i>et al.</i>	11-21-2000	
	BG	6,180,766	B1	Schinazi <i>et al.</i>	01-30-2001	
	BH	6,211,355	B1	Collins <i>et al.</i>	04-03-2001	
	BI	6,262,253	B1	Russell-Jones, <i>et al.</i>	07-17-2001	
	BJ	6,315,978	B1	Grissom <i>et al.</i>	11-13-01	
	BK	2002/0042394	A1	Hogenkamp <i>et al.</i>	04-11-2002	
	BL	2002/0049155	A1	Hogenkamp	04-25-2002	
	BM	2002/0151525	A1	Collins <i>et al.</i>	10-17-2002	
	BN	2003/0018009	A1	Collins	01-23-2003	
	BO	2003/0144198	A1	Collins	07-31-2003	
	BP	6,613,305	A1	Collins <i>et al.</i>	09-02-2003	

FOREIGN PATENT DOCUMENTS								
Examiner Initials *	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T 6
		Office ³	Number	Kind Code ² (if known)				
	BQ	AU	04490099	A1	Biotech Australia Pty. Ltd.	01-05-2000		
	BR	DE	1,811,518		Rhone-Poulenc S.A. [Bouchaudon] <i>Chem. Abstr.</i> 71:91866s (1969)	07-10-1969		
	BS	EP	0 005 834	A1	E.R. Squibb & Sons, Inc.	12-12-1979		
	BT	EP	0 069 450	A1	Technicon Instruments Corp.	01-12-1983		
	BU	EP	0 165 716	A1	Micromedic Systems Inc.	12-27-1985		
	BV	JP	58-046027	A2	Nippon Meijifujitsukusu KK	03-17-1983		y
	BW	WO	89/01475	A1	Celltech Ltd.; Parker; Millican	02-23-1989		
	BX	WO	92/09610	A1	University of California	06-11-1992		
	BY	WO	92/13571	A1	Dow Chemical Company	08-20-1992		
	BZ	WO	94/27613	A1	Biotech Australia Pty. Ltd. <i>et al.</i>	12-08-1994		
	BAA	WO	94/27641	A1	Biotech Australia Pty. Ltd. <i>et al.</i>	12-08-1994		
	BAB	WO	95/27723	A1	Morgan; Wilbur; Pathare	10-19-1995		

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Submitted for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Complete if Known	
				Application Number	10/777,820
				Filing Date	February 12, 2004
				First Named Inventor	Collins <i>et al.</i>
				Group Art Unit	Unassigned
				Examiner Name	Unassigned
Sheet	3	of	7	Attorney Docket Number	11138.105024 MAYO 1001 CON

3466095 1.DOC

FOREIGN PATENT DOCUMENTS								
Examiner Initials *	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T 6
		Office ³	Number	Kind Code ² (if known)				
	CA	WO	96/04016	A1	Amgen Inc.	02-15-1996		
	CB	WO	96/27641	A1	BioTech Australia	12-08-1994		
	CC	WO	96/31243	A1	The DuPont Merck Pharm. Co.	10-10-1996		
	CD	WO	97/14711	A1	Receptagen; Univ. Washington	04-24-1997		
	CE	WO	97/18231	A1	Regents of Univ. Minnesota	05-22-1997		
	CF	WO	97/33627	A2	The DuPont Merck Pharm. Co.	09-18-1997		
	CG	WO	98/08859	A1	Univ. Utah Res. Found.	03-05-1998		
	CH	WO	99/65930	A1	Biotech Australia Pty. Ltd.	12-23-1999		
	CI	WO	00/45857	A2	Schering AG	08-10-2000		
	CJ	WO	00/62808	A2	Univ. Minnesota	10-26-2000		
	CK	WO	00/74721	A1	Biotech Australia Pty. Ltd.	12-14-2000		
	CL	WO	01/28592	A1	Mayo Found.; U. Minnesota	04-26-2001		
	CM	WO	01/28595	A1	Mayo Found.; U. Minnesota	04-26-2001		
	CN	WO	01/30967	A2	Univ. Utah Res. Found. <i>et al.</i>	05-03-2001		
	CO	WO	01/92283	A2	Mayo Found.; U. Minnesota	12-06-2001		
	CP	WO	01/92288	A2	Collins; Mayo Found.; U. Minn.	12-06-2001		
	CQ	WO	02/042318	A2	Collins; Mayo Found.; U. Minn.	05-30-2002		
	CR	WO	02/055530	A2	Mayo Found.; U. Minnesota	07-18-2002		
	CS	WO	03/000010	A2	Collins	01-21-2003		
	CT	WO	03/025139	A2	Mayo Found.	03-27-2003		

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS							
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.					T 6
	CU	ALAM, G. <i>et al.</i> , "Boronated compounds for neutron capture therapy," <i>Strahlentherapie und Onkologie</i> , 165(2/3):121-123 (1989).					
	CV	ALLEN, R.H., <i>et al.</i> , "Isolation of gastric vitamin B ₁₂ -binding proteins using affinity chromatography," <i>J. Biol. Chem.</i> , 248(10):3660-3669 (May 25, 1973).					
	CW	ALLEN, R.H., <i>et al.</i> , "Isolation of vitamin B ₁₂ -binding proteins using affinity chromatography," <i>J. Biol. Chem.</i> , 247(23):7695-7701 (December 10, 1972).					
	CX	AMAGASAKI, T., <i>et al.</i> , "Expression of transcobalamin II receptors by human leukemia K562 and HL-60 cells," <i>Blood</i> , 76(7):1380-1386, (October 1, 1990).					

Examiner Signature	Date Considered
-----------------------	--------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Submitted for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Complete if Known	
				Application Number	10/777,820
				Filing Date	February 12, 2004
				First Named Inventor	Collins <i>et al.</i>
				Group Art Unit	Unassigned
				Examiner Name	Unassigned
Sheet	4	of	7	Attorney Docket Number	11138.105024 MAYO 1001 CON

3466095 1.DOC

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	DA	ANTON, D.L., <i>et al.</i> , "Carbon-13 nuclear magnetic resonance studies of the monocarboxylic acids of cyanocobalamin. Assignments of the B-, D-, and E-monocarboxylic acids," <i>J. Am. Chem. Soc.</i> , 102(7):2215-2219 (March 26, 1980).	
	DB	ANTON, D.L., <i>et al.</i> , "The synthesis and properties of four spin-labeled analogs of adenosylcobalamin," <i>J. Biol. Chem.</i> 255(10):4507-4510 (May 25, 1980).	
	DC	BEGLEY, J.A., <i>et al.</i> , "Cobalamin metabolism in cultured human chorionic villus cells," <i>J. Cell Physiol.</i> , 156(1):43-47 (July 1993).	
	DD	BERNHAEUER, K., <i>et al.</i> , "Zur Chemie und Biochemie der Corrinoides," <i>Biochem. Z.</i> , 344:289-309 (1966).	
	DE	BLOMQUIST, L., <i>et al.</i> , "Uptake of labelled vitamin B 12 and 4-iodophenylalanine in some tumors of mice," <i>Experientia</i> , 25(3):294-296 (March 15, 1969).	
	DF	BREEMAN, W.A., <i>et al.</i> , "Indium-111 labeled DTPA- and DOTA-bombesin analogs for receptor scintigraphy and radiotherapy," in Scientific Papers (June 9, 1999), Proc. of the 46 th Annual Meeting of the Society of Nuclear Medicine (Los Angeles, California, June 6-10, 1999), <i>J. Nuc.Med.</i> , 40(5):102P, Abstract no. 413 (May 1999 supplement).	
	DG	BROAN, C. J., <i>et al.</i> , "Synthesis and complexation behaviour of an effective octadentate complexone 1,4,7,10-tetraazacyclododecane-1,4,7,10-tetrakis[methylene(methylphosphinic acid)]," <i>J. Chem. Soc. Chem. Comm.</i> , 23:1739-1741 (1990).	
	DH	COLLINS, D.A., <i>et al.</i> , "Transcobalamin II receptor imaging via radiolabeled diethylene-triaminepentaacetate cobalamin analogs," <i>J. Nucl. Med.</i> , 38(5):717-723 (May 1997).	
	DI	COLLINS, D.A., <i>et al.</i> , "Tumor imaging via indium 111-labeled DTPA-adenosylcobalamin," <i>Mayo Clinic Proc.</i> , 74(7):687-691 (July 1999).	
	DJ	COOPER, B.A., <i>et al.</i> , "Selective uptake of specifically bound cobalt-58 vitamin B12 by human and mouse tumour cells," <i>Nature</i> , 191, 393-395 (July 1961).	
	DK	De JONG, M., <i>et al.</i> , "Radionuclide therapy using radiolabeled somatostatin analogs in tumor-bearing rats," in Scientific Papers (June 9, 1999), Proc. of the 46 th Annual Meeting of the Society of Nuclear Medicine (Los Angeles, California, June 6-10, 1999), <i>J. Nuc.Med.</i> , 40(5):102, Abstract no. 414 (May 1999 supplement).	
	DL	ELLENBOGEN, L., "Absorption and transport of cobalamin: Intrinsic factor and the transcobalamins," <i>Cobalamin: Biochemistry and Pathophysiology</i> , Babior, Ed., Wiley, New York (1975), Chapter 5.	
	DM	FAIRCHILD, R.G., <i>et al.</i> , "Current status of 10-B-neutron capture therapy: enhancement of tumor dose via beam filtration and dose rate, and the effects of these parameters on minimum boron content: A theoretical evaluation," <i>Int. J. Radiation Oncology, Biology, Physics</i> , 11(4):831-840 (April 1985).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Submitted for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Complete if Known	
				Application Number	10/777,820
				Filing Date	February 12, 2004
				First Named Inventor	Collins <i>et al.</i>
				Group Art Unit	Unassigned
				Examiner Name	Unassigned
Sheet	5	of	7	Attorney Docket Number	11138.105024 MAYO 1001 CON

3466095 1.DOC

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T 6
	EA	FINKLER, A.E., <i>et al.</i> , "Nature of the relationship between vitamin B12 binding and cell uptake," <i>Arch. Biochem. Biophys.</i> , 120(1):79-85 (April 1967).	
	EB	FLODH, H., <i>et al.</i> , "Accumulation of labelled vitamin B12 in some transplanted tumours," <i>Int. J. Cancer</i> , 3(5):694-699 (September 15, 1968).	
	EC	GABEL, D., "Tumor-Seeking Compounds for Boron Neutron Capture Therapy: Synthesis and Biodistribution," <i>Clinical Aspects of Neutron Capture Therapy</i> , Ralph G. Fairchild <i>et al.</i> , eds.; Plenum Press, New York, (undated), 233-241.	
	ED	GABEL, D., <i>et al.</i> , "Monte Carlo simulation of the biological effect of the ¹⁰ B(n,α) ⁷ Li reaction in cells and tissue and its implication for boron neutron capture therapy," <i>Radiation Research</i> , 111:14-25 (1987).	
	EE	HALL, C.A., <i>et al.</i> , "Cyclic activity of the receptors of cobalamin bound to transcobalamin II," <i>J. Cell Physiol.</i> , 133(1):187-191 (October 1987).	
	EF	HATANAKA, H., "A revised boron-neutron capture therapy for malignant brain tumors," <i>Journal of Neurology</i> , 209:81-94 (1975).	
	EG	HATANAKA, H., <i>et al.</i> , "Chapter XXV: Clinical Experience of Boron-Neutron Capture Therapy for Gliomas -- A Comparison with Conventional Chemo-Immuno-Radiotherapy," pp. 349-379. (undated)	
	EH	HAWTHORNE, M.F., <i>et al.</i> , "Preparation of tumor-specific boron compounds. 1. <i>In vitro</i> studies using boron-labeled antibodies and elemental boron as neutron target(s)," <i>Journal of Medicinal Chemistry</i> , 15(5):449-452 (1992).	
	EI	HOGENKAMP, H. <i>et al.</i> , "Synthesis and Characterization of nido-Carborane-Cobalamin Conjugates," <i>Nucl. Med. & Biol.</i> , 27:89-92 (2000).	
	EJ	HOGENKAMP, H. P. C., Chemical synthesis and properties of analogs of adenosylcobalamin, <i>Biochemistry</i> , 13(13):2736-2740 (1974).	
	EK	HOGENKAMP, H.P.C., <i>et al.</i> , "Carbon-13 nuclear magnetic resonance studies of adenosylcobalamin and alkylcorrinoids, selectively enriched with carbon-13," <i>Biochemistry</i> , 14(16):3707-3714 (1975).	
	EL	ICHIHASHI, M., <i>et al.</i> , "Specific killing effect of ¹⁰ B ₁ -para-boronophenylalanine in thermal neutron capture therapy of malignant melanoma: <i>In vitro</i> radiobiological evaluation," <i>The Journal of Investigative Dermatology</i> , 78(3):215-218 (1982).	
	EM	JACOBSEN, D.W., <i>et al.</i> , "Rapid purification of cobalamin-binding proteins using immobilized aminopropylcobalamin," <i>Anal. Biochem.</i> , 113:164-171 (1981).	
	EN	KIKUGAWA, K., <i>et al.</i> , "Direct halogenation of sugar moiety of nucleosides," <i>Tetrahedron Letters</i> , 1971(2):87-90 (1971).	
	EO	KAHL, S.B., <i>et al.</i> , "Chemical and biological studies on boronated tetraphenyl porphyrins," <i>Boron Chemistry</i> , 61-67	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Submitted for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Complete if Known	
				Application Number	10/777,820
				Filing Date	February 12, 2004
				First Named Inventor	Collins <i>et al.</i>
				Group Art Unit	Unassigned
				Examiner Name	Unassigned
Sheet	6	of	7	Attorney Docket Number	11138.105024 MAYO 1001 CON

3466095 1.DOC

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T
	FA	LASTER, B.H., <i>et al.</i> , "Biological efficacy of a boronated porphyrin as measured in cell culture," <i>Strahlentherapie und Onkologie</i> , 165(2/3):203-205 (1989).	
	FB	LINDEMANS, J., <i>et al.</i> , "Uptake of transcobalamin II-bound cobalamin by HL-60 cells: effects of differentiation induction," <i>Experimental Cell Research</i> , 184(2):449-460 (Oct. 1989).	
	FC	LUO, S.Z., "Studies on bone tumor therapeutic radiopharmaceuticals.IV. Investigation of the structure-activity relationships (SARS) of ¹⁵³ Sm-aminocarboxylate complexes," in Poster Sessions, Proc. of the 46 th Annual Meeting of the Society of Nuclear Medicine (Los Angeles, California, June 6-10, 1999), <i>J. Nuc. Med.</i> , 40(5):316P, Abstract no. 1386 (May 1999 supplement).	
	FD	McBRIDE, W.J., "A general method for the introduction of metal binding ligands onto the side chains of peptides during peptide synthesis," in Scientific Papers (June 9, 1999), Proc. of the 46 th Annual Meeting of the Society of Nuclear Medicine (Los Angeles, California, June 6-10, 1999), <i>J. Nuc. Med.</i> , 40(5):124P, Abstract no. 500 (May 1999 supplement).	
	FE	MEASE, R.C., <i>et al.</i> , "Indium-111 CDTA-(aminostyryl)pyridiniumum (di-X-asp) dyes: synthesis, canine and human leukocyte labeling, and serum stability," in Poster Sessions, Proc. of the 46 th Annual Meeting of the Society of Nuclear Medicine (Los Angeles, California, June 6-10, 1999), <i>J. Nuc. Med.</i> , 40(5):318P, Abstract no. 1396 (May 1999 supplement).	
	FF	MISHIMA, Y., <i>et al.</i> , "Treatment of malignant melanoma by single thermal neutron capture therapy with melanoma-seeking B-compound," <i>Lancet</i> , 2(8659):388-389 (August 12, 1989).	
	FG	MISHIMA, Y., <i>et al.</i> , "First human clinical trial of melanoma neutron capture. Diagnosis and therapy," <i>Strahlentherapie und Onkologie</i> , 165(2/3):251-254 (1989).	
	FH	MOMEN, A., <i>et al.</i> , "Impact of high resolution bone spect imaging of the thoracolumbar spine on patient management in oncology," in Scientific Papers (June 9, 1999), Proc. of the 46 th Annual Meeting of the Society of Nuclear Medicine (Los Angeles, California, June 6-10, 1999), <i>J. Nuc. Med.</i> , 40(5):124P, Abstract no. 500 (May 1999 supplement).	
	FI	NAKAGAWA, T., <i>et al.</i> , "Syntheses of chlorpromazine undecahydrododecaborate and nonahydrododecaborate -- promising agents for neutron capture therapy of malignant melanoma," <i>Chem. Pharm. Bull. (Tokyo)</i> , 24(4):778-781 (1976) [UDC 547.869.2.04; 547.244.04]	
	FJ	NEXO, E., "Cobalamin-binding proteins," Chapter 30 in <i>Vitamin B₁₂ and B₁₂ Proteins</i> , B. Krantler <i>et al.</i> , Eds., Wiley & Sons, New York (1997), pp. 461-475.	
	FK	NORENBERG, J.P., "[²¹³ Bi-DOTA ⁰ , Tyr ¹]octreotide (²¹³ Bi-DOTATOC) in peptide receptor radionuclide therapy (PRRT)," in Scientific Papers (June 9, 1999), Proc. of the 46 th Annual Meeting of the Society of Nuclear Medicine (Los Angeles, California, June 6-10, 1999), <i>J. Nuc. Med.</i> , 40(5):103, Abstract no. 415 (May 1999 supplement).	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → ☐

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Submitted for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Complete if Known	
				Application Number	10/777,820
				Filing Date	February 12, 2004
				First Named Inventor	Collins <i>et al.</i>
				Group Art Unit	Unassigned
				Examiner Name	Unassigned
Sheet	7	of	7	Attorney Docket Number	11138.105024 MAYO 1001 CON

3466095 1.DOC

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T
	GA	ORDER, S.E., <i>et al.</i> , "Use of isotopic immunoglobulin in therapy," <i>Cancer Res.</i> , 40:3001-3007 (August 1980)	6
	GB	PISAL, S.S., <i>et al.</i> , "Formulation of nasal gels of Vitamin B12-1: Effect of additives on thermodynamic properties of pluronic PF-127 gels," <i>Indian J. Pharm. Sci.</i> (May-June 2002), accessed November 12, 2002, at www.indianpharma.org/may-june2002/fnasalgels.html .	
	GC	PRIMUS, F.J., <i>et al.</i> , "Bispecific antibody mediated targeting of nido-carboranes to human colon carcinoma cells," <i>Bioconjugate Chemistry</i> , 7:532-535 (1996).	
	GD	RAO, P.S., <i>et al.</i> , "TC-99M labeled peptide for imaging infection," in Poster Sessions, Proc. of the 46 th Annual Meeting of the Society of Nuclear Medicine (Los Angeles, California, June 6-10, 1999), <i>J. Nuc. Med.</i> , 40(5):319P, Abstract no. 1398 (May 1999 supplement).	
	GE	RAPPAZZO, M.E., <i>et al.</i> , "Transport function of transcobalamin II," <i>J. Clin. Invest.</i> , 51(7), 1915-1918 (July 1972).	
	GF	ROE, D.G., <i>et al.</i> , "Combinatorially designed technetium radiopharmaceuticals (CDTR TM)," in Scientific Papers, Proc. of the 46 th Annual Meeting of the Society of Nuclear Medicine (Los Angeles, California, June 6-10, 1999), <i>J. Nuc. Med.</i> , 40(5):123P, Abstract No. 499 (May 1999 supplement).	
	GG	RUSER, G., <i>et al.</i> , "Synthesis and evaluation of two new biconjugated carboxymethylated tetrazamacrocyclic chelating agents for protein labeling with Indium-111," <i>Bioconj. Chem.</i> , 1:345-349 (1990).	
	GH	SATTELBERGER, A.R., <i>et al.</i> , "Nuclear medicine finds the right chemistry," <i>Nature Biotechnology</i> , 849-850, Vol. 17, September 1999.	
	GI	SMELTZER, C.C., <i>et al.</i> , "Synthesis and characterization of fluorescent cobalamin (CobalaFluor) derivatives for imaging," <i>Organic Letters</i> , 3(6):799-801 (2001).	
	GJ	TORAYA, T., <i>et al.</i> , "Preparation, properties and biological activities of succinyl derivatives of vitamin B ₁₂ ," <i>Bioinorg. Chem.</i> , 4:245-255 (1975).	
	GK	WILBUR, D.S., <i>et al.</i> , "Evaluation of Biotin-Dye Conjugates for Use in an HPLC Assay to Assess Relative Binding of Biotin Derivatives with Avidin and Streptavidin." <i>Bioconjugate Chem.</i> , 11(4), 584-598 (July-August 2000).	
	GL	WLBUR, D.S., <i>et al.</i> , "Biotin Reagents for Antibody Pretargeting. 4. Selection of Biotin Conjugates for in Vivo Application Based on Their Dissociation Rate from Avidin and Streptavidin." <i>Bioconjugate Chem.</i> , 11(4), 569-583 (July-August 2000).	
	GM	WU, C., VIRZI, F., and HNATOWICH, D.J., "Investigations of N-linked macrocycles for ¹¹¹ In and ⁹⁰ Y labeling of proteins," <i>Nucl. Med. Biol.</i> , 19(2):239-244 (1992) [<i>Int. J. Radiat. Appl. Instrum. Part B</i>].	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U. S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.